

REMARKS

This application has been carefully reviewed in light of the Office Action dated February 17, 2006. Claims 1 to 30 and 51 to 54 are pending in the application, of which Claims 1, 11, 21 and 51 to 54 are independent. Reconsideration and further examination are respectfully requested.

Claims 1, 11 and 21 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action stated that there was insufficient antecedent basis in these claims for the feature of a “print processing result.” Without conceding the correctness of the rejection, Applicants submit that the foregoing amendments to the claims has eliminated the term “print processing result.” Therefore, Applicants request reconsideration and withdrawal of this rejection.

Claims 1, 11 and 21 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,661,530 (Munetomo). Claims 2 to 4, 6, 9, 10, 12 to 14, 16, 19, 20, 22 to 24, 26, 29 and 30 were rejected under 35 U.S.C. § 103(a) over Munetomo in view of U.S. Patent No. 5,923,013 (Suzuki). Claims 5, 15 and 25 were rejected under 35 U.S.C. § 103(a) over Munetomo in view of Suzuki, and in further view of U.S. Patent No. 5,864,634 (Kurita). Claims 7, 17 and 27 were rejected under 35 U.S.C. § 103(a) over Munetomo in view of Suzuki, and in further view of U.S. Patent No. 6,788,427 (Okigami). Claims 8, 18 and 28 were rejected under 35 U.S.C. § 103(a) over Munetomo in view of U.S. Patent No. 6,8804,018 (Mochizuki). Claims 51 to 54 were rejected under 35 U.S.C. § 103(a) over Munetomo in view of U.S. Patent No. 6,101,513 (Shakib). Reconsideration and withdrawal of these rejections are respectfully requested.

Turning to specific claim language, amended independent Claim 1 is directed to an information processing apparatus that creates a print job to be printed by a printing apparatus having an inversion process function. The apparatus includes a receiving unit adapted to receive print data from an operating system in response to printout from an application; an intermediate data converting unit adapted to convert the print data received via the operating system from the application to an intermediate code format data and to store the converted intermediate code format data and processing conditions of the print data; and an analysis detection adapted to analyze the processing conditions and to determine whether or not the inversion process function to be executed by the printing apparatus is set in the processing conditions. The apparatus further includes an inversion-type determination unit adapted to determine whether an entire print sheet is to be inverted or each page of the intermediate code format data is to be inverted with keeping an arrangement of each page; a preview display controlling unit adapted to display a preview image representing a print sheet printed by the printing apparatus, based on the print data stored by the intermediate data converting unit and the stored processing conditions; and a job creation unit adapted to create the print job based on the intermediate code format data stored by the intermediate data converting unit, after the preview display controlling unit displays the preview image. The intermediate code format data is used for both the preview image and the print job. The preview display controlling unit displays the preview image representing the print sheet where the arrangement of each page is kept and each page is inverted, in a case where the analysis unit determines that the inversion process function is set in the processing conditions and inversion-type determination unit determines that each page of the intermediate code format data is to be inverted. The preview display controlling unit displays the preview image representing the print sheet where the entire print sheet is inverted, in a case where the analysis

unit determines that the inversion process function is set in the processing conditions and the inversion-type determination unit determines that the entire print sheet is to be inverted.

In contrast, Munetomo discloses software for generating a preview image in accordance with setting of print data and displaying the preview image on the display. For example, mirroring and black-and-white inversion are disclosed as the generated preview image.

In Munetomo, the application 2-1 shown in Fig. 2 has an interface portion 2-4 for a print support software 2-9 and an interface portion 2-3 for a printer driver 2-16. That is, the application 2-1 has the two interface portions. The number of paths of the data output from the application 2-1 is two (2-3, 2-4). Data is output via one of the interface portions from the application 2-1 in accordance with processing to be executed. In a case where a preview is executed, the data used for the preview is output via the interface 2-4 to the print support software 2-9. In a case where a print is executed, the data used for the print is output via the interface 2-3 to the printer driver 2-16. Two times operations are needed on the application in order to execute the preview and the print. In the execution of the preview and the print, the application 2-1 must be in an activated state until the processing of the print is completed.

However, as featured in amended Claim 1, data output from an application is spooled, and the spooled data is used for both the preview image and the print job. The characterized processing of the preview display controlling unit is performed based on an intermediate code format data converted from the spooled data. In the configuration, it is not necessary for the application to be in the activated state until the processing of the print is completed. After the data is output from the application, the application can execute other processing. As to the configuration for processing the data, there is a difference between Claim 1 and Munetomo.

Furthermore, Claim 1 features an inversion-type determination unit adapted to determine whether an entire print sheet is to be inverted or each page of the intermediate code format data is to be inverted with keeping an arrangement of each page. The inversion-type determination unit can determine two kinds of the inversion type. Such an inversion-type determination unit is not disclosed or suggested in Munetomo.

In light of the deficiencies of Munetomo as discussed above, Applicants submit that amended independent Claim 1 is now in condition for allowance and respectfully request same.

Amended independent Claims 11 and 21 are directed to a method and a storage medium storing a program, respectively, substantially in accordance with the apparatus of Claim 1. Accordingly, Applicant submits that Claims 11 and 21 are also now in condition for allowance and respectfully requests same.

Amended independent Claim 51 is directed to an information processing apparatus that creates print data. The apparatus includes a spooling unit adapted to store print data created by an application; a determining unit adapted to determine whether mirroring setting is set as print setting for the print data; a preview display controlling unit adapted, in a case where the determining unit determines that the mirroring setting is set, to create mirrored display data based on the print data stored by the spooling unit and to present a preview; and a mirroring unit determining unit adapted, in a case where mirroring setting is set as the print setting for the print data and a Nup setting for placing N logical pages on one physical page is set, to determine whether the mirrored display data is to be created in unit of a logical page or the mirrored display data is to be created in unit of a physical page. In a case where the mirroring unit determining unit determines that the mirrored display data is to be created in unit of the logical page, the preview display controlling unit creates the mirrored display data for placing the mirrored image

of each logical page without changing an arrangement order of each logical page to be placed on the physical page. In a case where the mirroring unit determining unit determines that the mirrored display data is to be created in unit of the physical page, the preview display controlling unit creates the mirrored display data for the mirrored image of the physical page on which each logical page is placed.

In Claim 51, in a case where a Nup setting and a mirroring setting are set, an information processing apparatus of Claim 51 determines whether the mirroring in unit of a logical page is to be performed or the mirroring in unit of a physical page is to be performed. In a case where the mirroring in unit of the logical page is performed, the mirrored image of each logical page without changing an arrangement order of each logical page to be placed on the physical page is created (see Fig. 25 (2)). In a case where the mirroring in unit of the physical page is performed, the mirrored image of the physical page on which each logical page is placed is created (see Fig. 25(1)).

The disclosures of Munetomo have been described above. Applicant submits that Munetomo fails to disclose or suggest at least the feature of determining whether the mirrored display data is to be created in unit of a logical page or in unit of a physical page, and creating the mirrored display data for placing the mirrored image of each logical page without changing an arrangement order of each logical page to be placed on the physical page or creating the mirrored display data for the mirrored image of the physical page on which each logical page is placed, depending on the determination.

Shakib is seen merely to disclose using one of a plurality of print layouts and page formats to display, or print, a number of virtual pages. According to Shakib at col. 15, lines 46 to 52, a physical page has logical dimensions, and defines a virtual page size for the virtual pages to be used with the physical page. As stated at col. 16, lines 33 to 34, the virtual pages are

preferably all the same size. Thus, Shakib is not seen to teach or to suggest determining whether the mirrored display data is to be created in unit of a logical page or in unit of a physical page, and creating the mirrored display data for placing the mirrored image of each logical page without changing an arrangement order of each logical page to be placed on the physical page or creating the mirrored display data for the mirrored image of the physical page on which each logical page is placed, depending on the determination.

Therefore, Applicants submit that neither Munetomo nor Shakib, neither alone nor in combination, disclose or suggest at least the feature of determining whether the mirrored display data is to be created in unit of a logical page or in unit of a physical page, and creating the mirrored display data for placing the mirrored image of each logical page without changing an arrangement order of each logical page to be placed on the physical page or creating the mirrored display data for the mirrored image of the physical page on which each logical page is placed, depending on the determination. Accordingly, Applicants submit that Claim 51 is now in condition for allowance and respectfully request same.

Claims 52, 53 and 54 are directed to a method, a medium storing a computer program and a computer program, respectively, substantially in accordance with Claim 51. Therefore, Applicants respectfully submit that Claims 52, 53 and 54 are also now in condition for allowance and respectfully request same.

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed allowable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the allowability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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